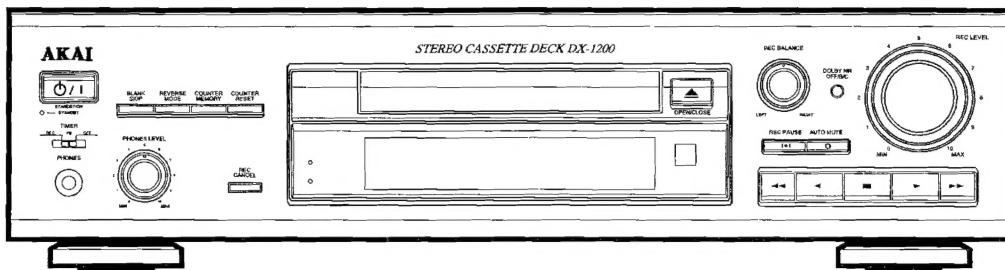




AKAI-01222

AKAI SERVICE MANUAL



STEREO CASSETTE DECK

SPECIFICATIONS

MODEL DX-1200

<ul style="list-style-type: none">• Track system : 4 track, 2-channel stereo• Recording system : AC bias• Erasing system : AC erasing• Tape speed : 4.8cm/sec• Motor : DC motor• Frequency response<ul style="list-style-type: none">Normal : 40~14,000HzCrO2 : 40~15,000HzMetal : 40~16,000Hz• FF and REW time : 120sec (C-60 cassette tape)• Wow/Flutter : 0.1% (JIS. WRMS)• S/N ratio<ul style="list-style-type: none">DOLBY C NR ON : 75dB(CCIR/ARM)DOLBY B NR ON : 65dB(CCIR/ARM)DOLBY NR OFF : 55dB(CCIR/ARM)	<table><tr><th colspan="2">GENERAL</th></tr><tr><td colspan="2"><ul style="list-style-type: none">• Power consumption : 13W• Power supply : AC 230V, 50Hz [E/B/S] AC 230V/120V, 50~60HZ [U] AC 120V, 60HZ [U.S.A/CANADA]• Dimension(W×H×D): 430×111×330mm• Weight : 4.9kg (net)</td></tr><tr><th colspan="2">Standard accessories</th></tr><tr><td>Audio signal connection cord</td><td>2</td></tr><tr><td>Remote control connection cord</td><td>1</td></tr><tr><td>Remote control unit</td><td>1</td></tr><tr><td>Operator's manual</td><td>1</td></tr></table>	GENERAL		<ul style="list-style-type: none">• Power consumption : 13W• Power supply : AC 230V, 50Hz [E/B/S] AC 230V/120V, 50~60HZ [U] AC 120V, 60HZ [U.S.A/CANADA]• Dimension(W×H×D): 430×111×330mm• Weight : 4.9kg (net)		Standard accessories		Audio signal connection cord	2	Remote control connection cord	1	Remote control unit	1	Operator's manual	1
GENERAL															
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Standard accessories															
Audio signal connection cord	2														
Remote control connection cord	1														
Remote control unit	1														
Operator's manual	1														

- * For improvement purposes, specifications and design are subject to change without notice.
- * Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang and Olufsen.
- * "DOLBY", the double-D symbol and "HX Pro" are trademarks of Dolby Laboratories Licensing Corporation.

Handwritten signature

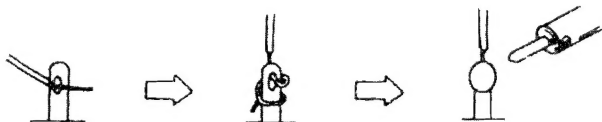
CONTENTS

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SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the \triangle (*) symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
These must also be replaced only with specified replacements.
Examples :RF converters, tuner units, antenna selectswitches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially :
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers(insulating barriers)
 - 4) Insulation sheets for transistors
 - 5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Make sure that wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.

Please leave them at an appropriate depot. All other household batteries can be thrown out with the household waste.



SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.

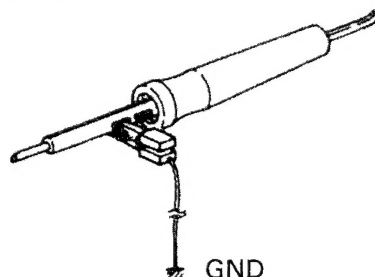
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15 μ F capacitor, under the unit's normal working conditions.

The leakage-current should be less than 0.5mA rms AC. The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2M Ohms.

PRECAUTIONS IN REPAIRING

When repairing or adjusting the unit, please note the following points.

1. Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts.
2. When the base is removed for repair adjustment, make sure that there are no metal objects in the narrow gap between the P. C. board or the mecha parts and the base
3. The Micro-Computer and the CD signal processing ICs can be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the precautions against leakage as in the illustration.



4. Do not loosen any screws in the pick-up block.
When handling the pick-up block, please refer to the points to NOTE when replacing the pick-up block.
5. Keep safety for hazardous invisible Laser Radiation, DO NOT watch the Laser Beam (Objective lens) directly.
6. Models for some countries, laser warning labels are affixed on the unit and inside of the unit, as shown below. Read it carefully for your safety, when repairing or adjusting the unit.

INFORMATION

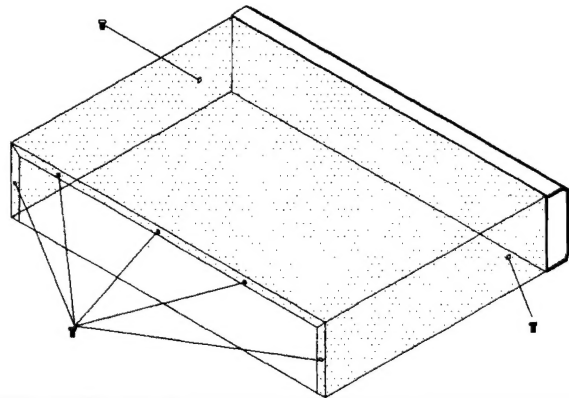
SYMBOLS FOR PRIMARY DESTINATION

Primary destination of units are indicated with the following alphabet.

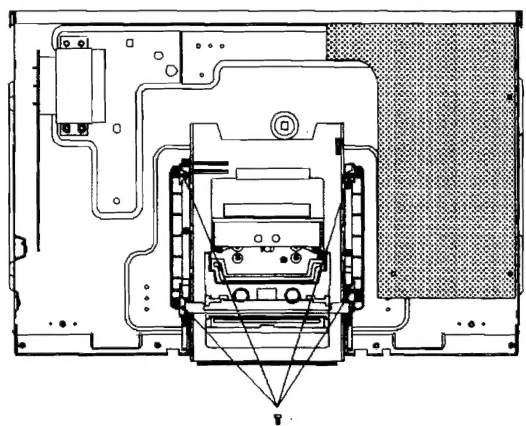
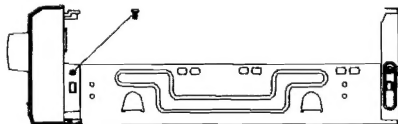
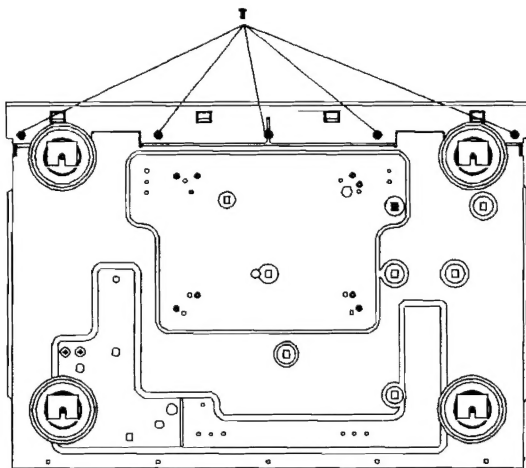
Symbols	Principal Destinations
B	UK
E	Europe (except UK)
S	Australia
U	Universal Area
Y*	Custom version

DISASSEMBLY

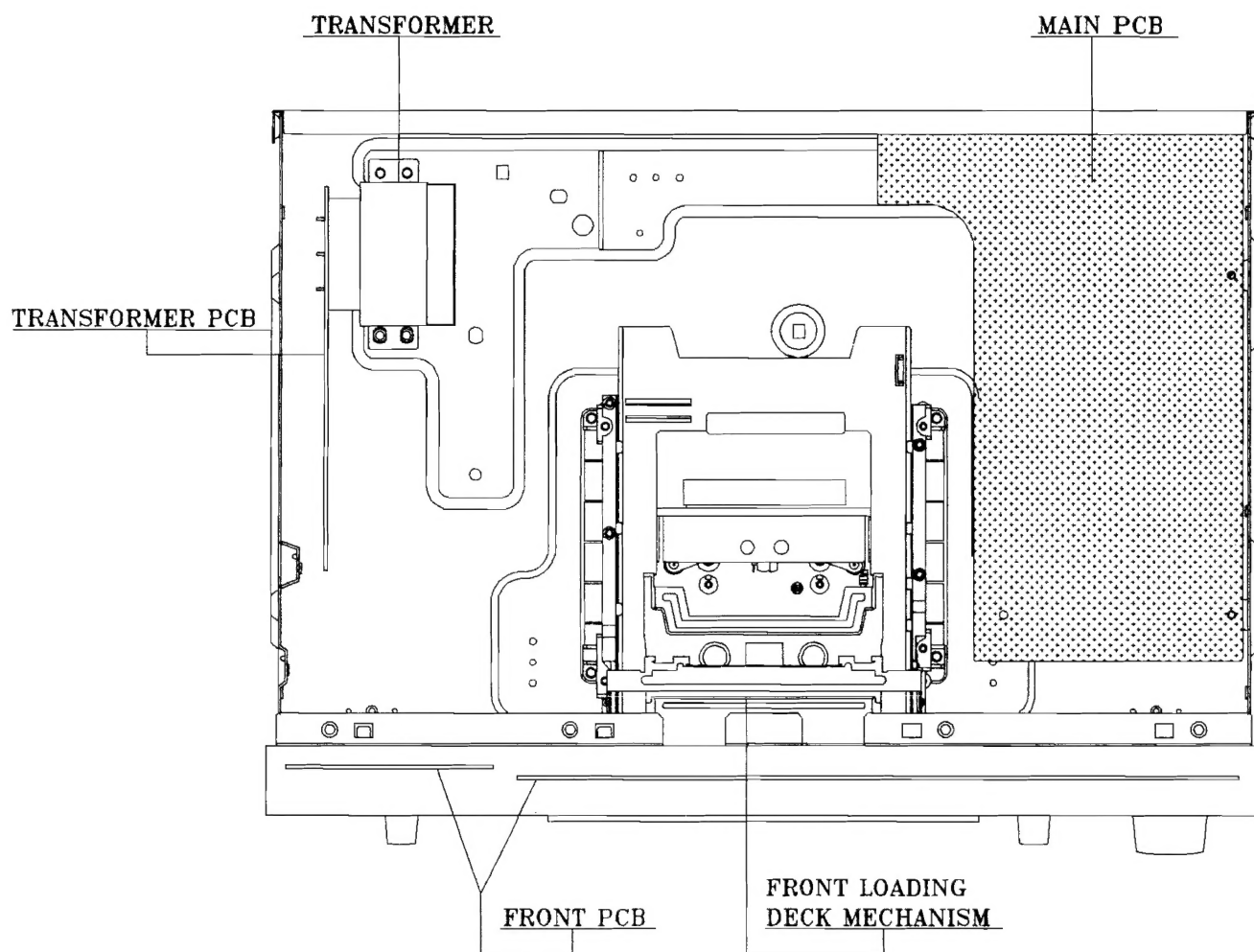
1) ROMOVAL OF TOP COVER



2) ROMOVAL OF FRONT PANEL



PRINCIPAL PARTS LOCATION



MEASUREMENT AND ADJUSTMENT METHODS

Measurement condition

- Dolby NR position: OFF
- Make sure heads are clean
- Make sure capstan and pressure roller are clean.

Measuring instruments

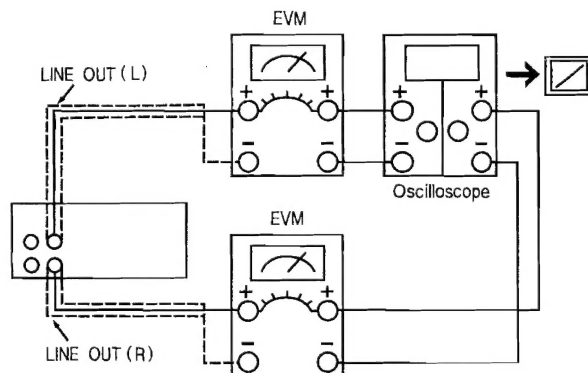
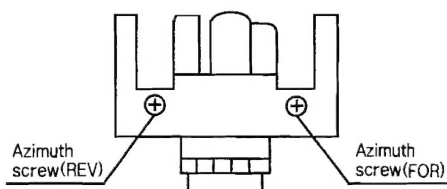
- EVM (Electronic Voltmeter)
- Oscilloscope
- Frequency counter
- AF Oscillator
- DC Voltmeter
- ATT (Attenuator)
- Resistor (600ohm)

Test tape

- Head azimuth (10kHz, -10dB): MTT-114N
 - Tape speed (3kHz, -10dB): MTT-111N
 - Playback frequency response (125Hz, 1kHz, 10kHz, -10dB)
 - Playback gain: MTT-150
 - Blank tape
- Normal blank tape: MTT-5513
CrO₂ blank tape: MTT-5563
Metal blank tape: MTT-5572

HEAD AZIMUTH ADJUSTMENT

1. Test equipment connections are shown in fig. 1.
2. Playback the head Azimuth test tape and regulate the angle adjust screw so that the outputs of L-ch and R-ch are maximized. (When the adjusting positions are different with L-ch and R-ch, find a position where the outputs of L-ch and R-ch are balanced and then make the adjustment.)
3. At the same time, obtain a lissajous waveform and eliminate phase deflection.
4. After the adjustment, apply screw lock to the angle adjusting value.

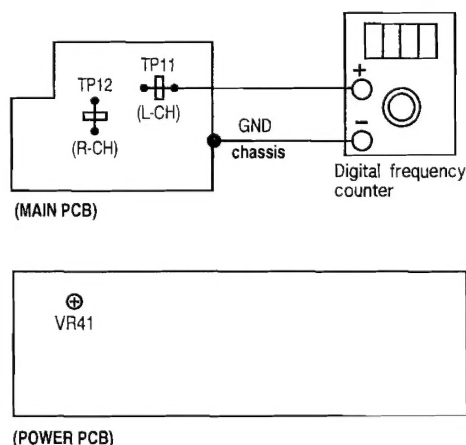


(Fig. 1)

TAPE SPEED ADJUSTMENT

1. Test equipment connections are shown in fig. 2.
2. Playback the middle part of the test tape. (MTT-111N).

Adjustment Point	VR41
Standard Value	3,000Hz \pm 30Hz

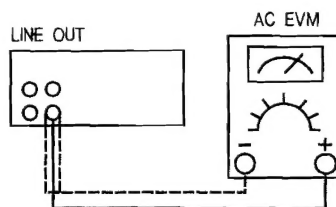


(Fig. 2)

PLAYBACK GAIN ADJUSTMENT

1. Test equipment connections are shown in fig. 3.
2. Playback the playback gain test tape.(MTT-150).
3. Adjust playback gain.

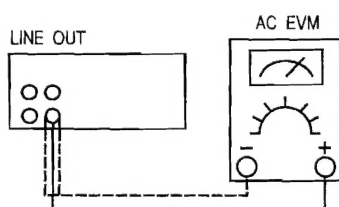
Adjustment Point	L ch	R ch
	VR11	VR12
Standard Value	540mV	



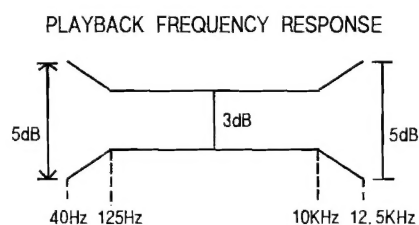
(Fig. 3)

PLAYBACK FREQUENCY RESPONSE

1. Test equipment connections are shown in fig. 4.
2. Playback the playback frequency response test tape.
3. Check that the frequency response is within the range shown in fig. 5 for both L-ch and R-ch.



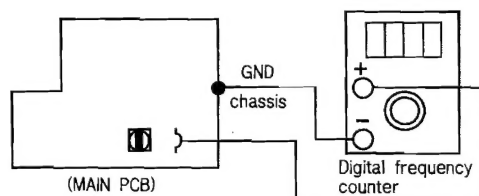
(Fig. 4)



(Fig. 5)

BIAS FREQUENCY ADJUSTMENT

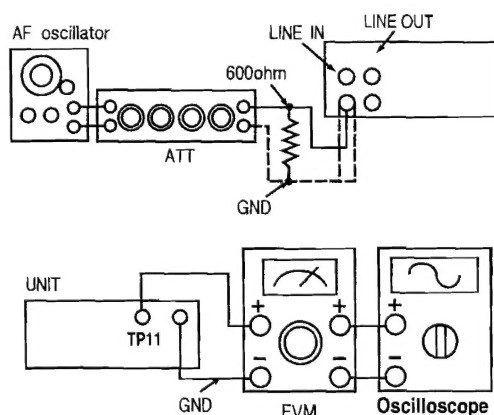
1. Test equipment connections are shown in fig. 6.
2. Load a CrO₂ blank test tape.
3. Press the record and pause button.
4. Adjusts T351 for 105kHz frequency counter reading.



(Fig. 6)

OVERALL GAIN ADJUSTMENT

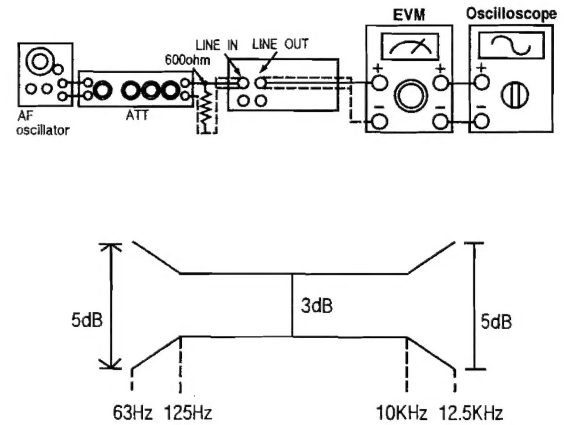
1. Test equipment connections are shown in fig. 7.
2. Insert the normal reference blank tape.
3. Place UNIT into record mode.
4. Supply a 1kHz signal through ATT (-10dB) from AF oscillator into LINE IN.
5. Adjust ATT until monitor level at TP11 (L-ch) or TP12 (R-ch) becomes 180mV.
6. Playback recorded tape and make sure that the output level at TP11 (L-ch) or TP12 (R-ch) becomes 180mV.
7. If measured value is not 180mV, adjust it by using VR21 (L-CH) or VR22 (R-CH).
8. Repeat from step (2).



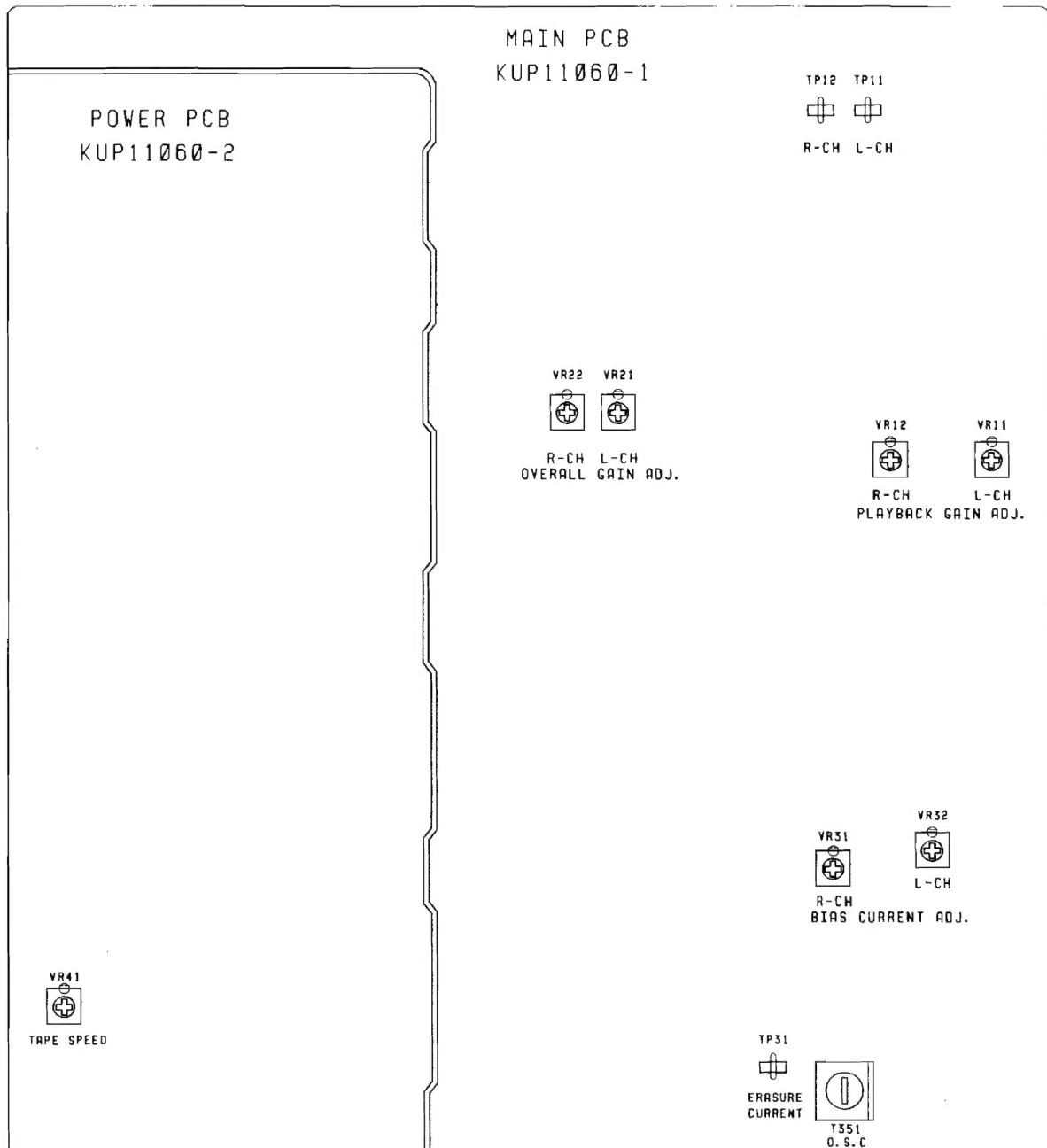
(Fig. 7)

OVERALL FREQUENCY RESPONSE

1. Set a normal blank tape (MTT-5513) and record the signal (100Hz, 1kHz, 10kHz) applied through ATT from AF oscillator into (LINE IN Level: 35mV).
2. Playback the signal recorded in step 1, and check that the output level of each frequency within the range shown in fig. 8 in comparison with the reference frequency (1kHz).
3. If it is not within the standard range, adjust the bias current by using VR31 (L-CH) or VR32 (R-CH) so that the frequency level is within the standard.
 - Level up in high frequency range ... Increase the bias current.
 - Level down in high frequency range ... Decrease the bias current.
4. After that, increase the signal frequency recorded on CrO₂ blank tape (MTT-5563) and metal blank tape (MTT-5572) up to 12kHz and adjust in the same way as mentioned above and check that the frequency level is within the range shown in Fig. 8.



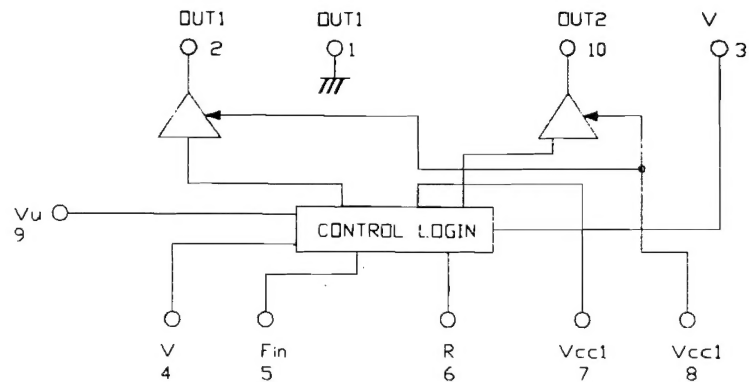
(Fig. 8)



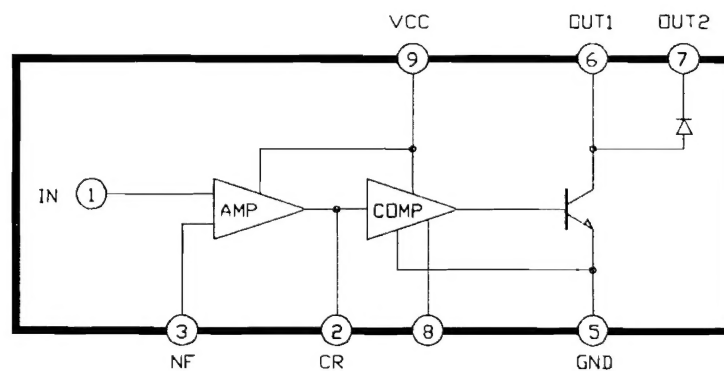
IC PIN FUNCTION MICRO-PROCESSOR'S (ANAM1223D)

No.	SYMBOL	I/O	DESCRIPTION
3~7	G1~G5	O	FLD GRID SELECTION OUTPUT.
8	VDD	-	+5V
9~12	KEY IN	I	KEY MATRIX INPUT
13~16	KEY OUT	O	KEY MATRIIX OUTPUT
17	RESET	I	SYSTEM RESET INPUT
18	AV	-	GROUND OF A/D CONVERTER
21	STANDBY	O	POWER STANDBY INDICATOR OUTPUT
23, 24	TIMER	I	TIMER CONTROLLED INPUT
25	B. SKIP	O	BLANK SKIP INDICATOR OUTPUT
26	COUNT. M	O	COUNTER MEMORY INDICATOR OUTPUT
27	METER (R)	I	LEVEL METER R CH, INPUT
28	METER (L)	I	LEVEL METER L CH, INPUT
29	AVDD	-	ANALOG Add OF A/D CONVERTER
30	AVREF	-	REFERENCE VOLTAGE OF A/D CONVERTER
33	VSS	-	GROUND
34	X1	I	CRYSTAL CONNECTION PIN
35	X2	O	CRYSTAL CONNECTION PIN
38	MUTE	O	MUTE CONTROL OUTPUT FOR LINE OUT
39	REC ON	O	OUTPUT FOR RECORDING MODE
40	REC MUTE	O	RECORDING MUTE OUTPUT
41	B	O	DOLBY B NR SELECTION OUTPUT
42	C	O	DOLBY C NR SELECTION OUTPUT
43	POWER	O	POWER OUTPUT
44	IPSS	I	IPSS INPUT
45	COUNT	I	TAPE COUNTER INPUT
46	REMOTE-IN	I	REMOTE CONTROL SENSOR INPUT
47	BUS-IN	I	BUS-LINE DATA INPUT
49	BUS-OUT	O	BUS-LINE DATA OUTPUT
50	TAPE	I	TAPE LOADING DETECTION INPUT
51	PLAY	I	PLAY INPUT
53	REC-F	I	REC. PROTECTION TAP DETECTION (FORWARD) INPUT
54	REC-R	I	REC. PROTECTION TAP DETECTION (REVERSE) INPUT
55	OPEN SW	I	TRAY OPEN SW. INPUT
56	CLOSE SW	I	TRAY CLOSE SW. INPUT
57	SOL	O	SOLENOID CONTROL OUTPUT
58	MOTOR	O	MOTOR DRIVE OUTPUT
59	CLOSE-MOTOR	O	OPEN/CLOSE MOTOR DRIVE OUTPUT (CLOSE)
60	OPEN-MOTOR	O	OPEN/CLOSE MOTOR DRIVE OUTPUT (OPEN)
61~70	P1~P10	O	FLD SEGMENT SELECTION OUTPUT
72~80	P11~P16	O	FLD SEGMENT SELECTION OUTPUT

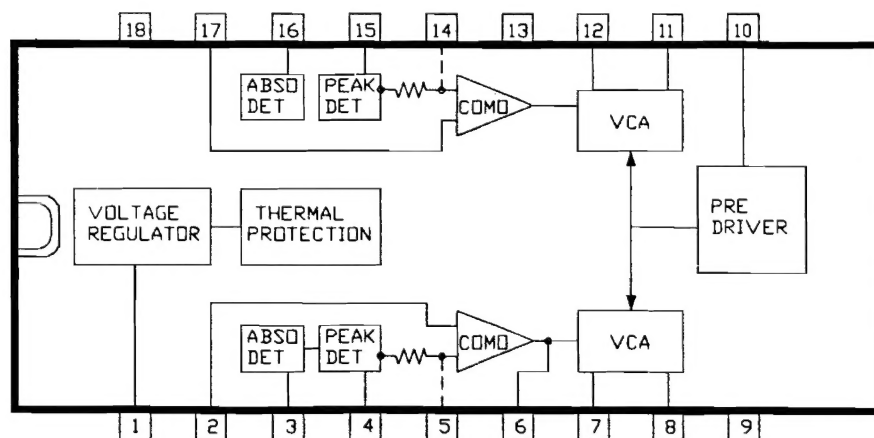
BA6209(Reversible Motor Driver)



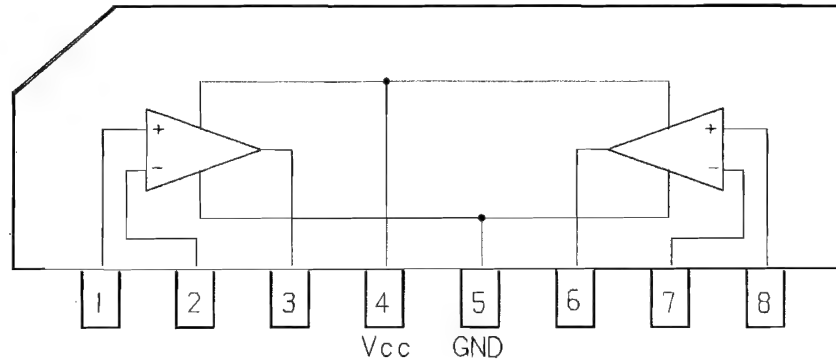
LA2000(Audio Level Sensor)



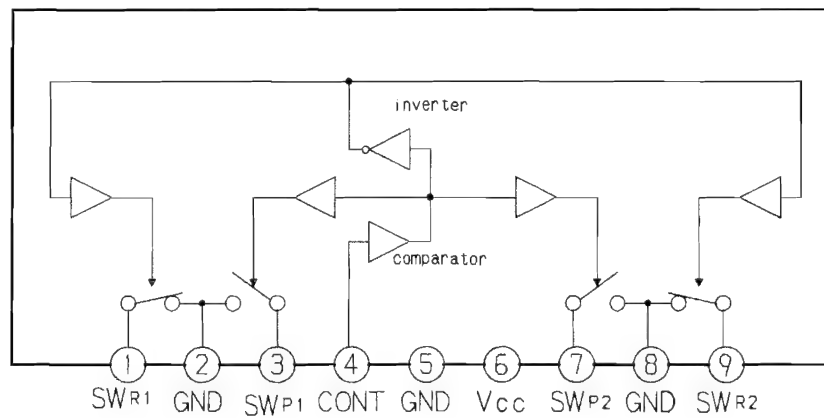
PC1297(DOLBY HX PRO System)



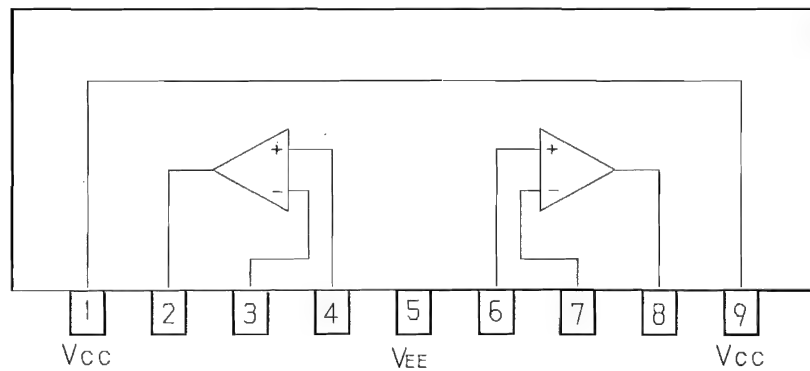
uPC1228HA (low noise pre-amp)



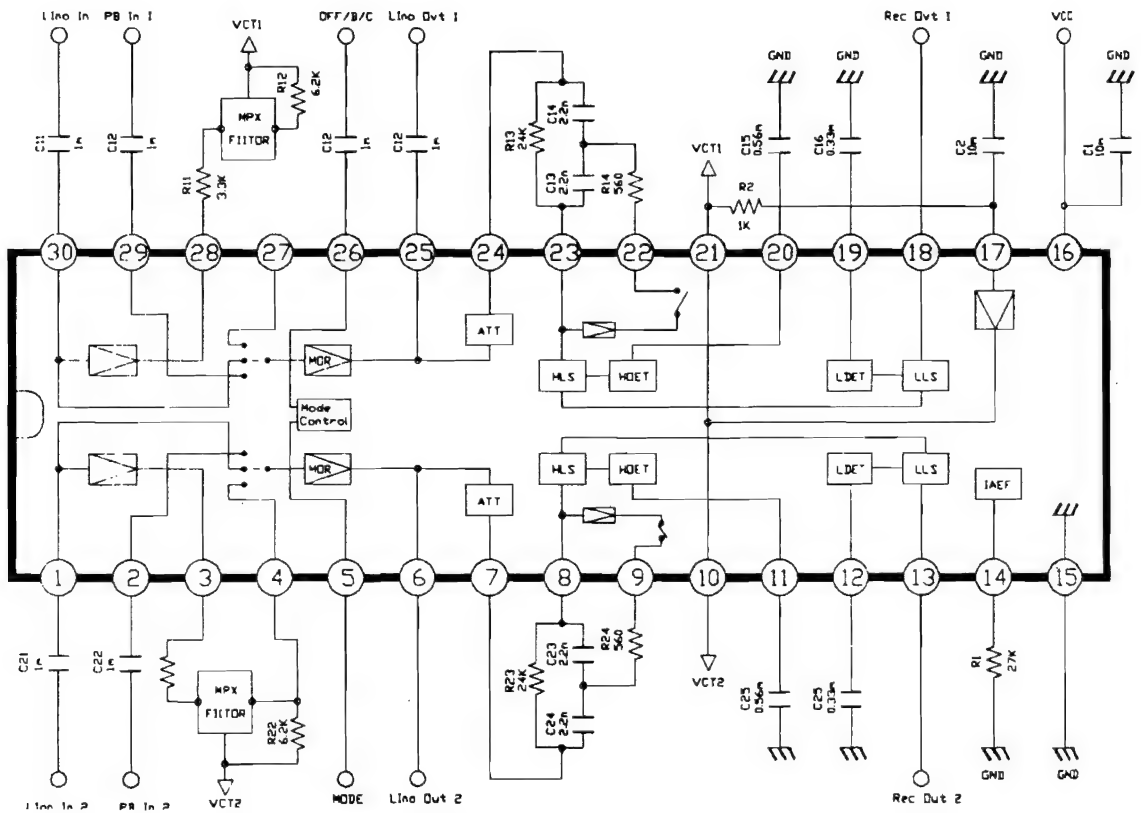
uPC1330HA (REC/PB AUDIO HEAD SWITCH)



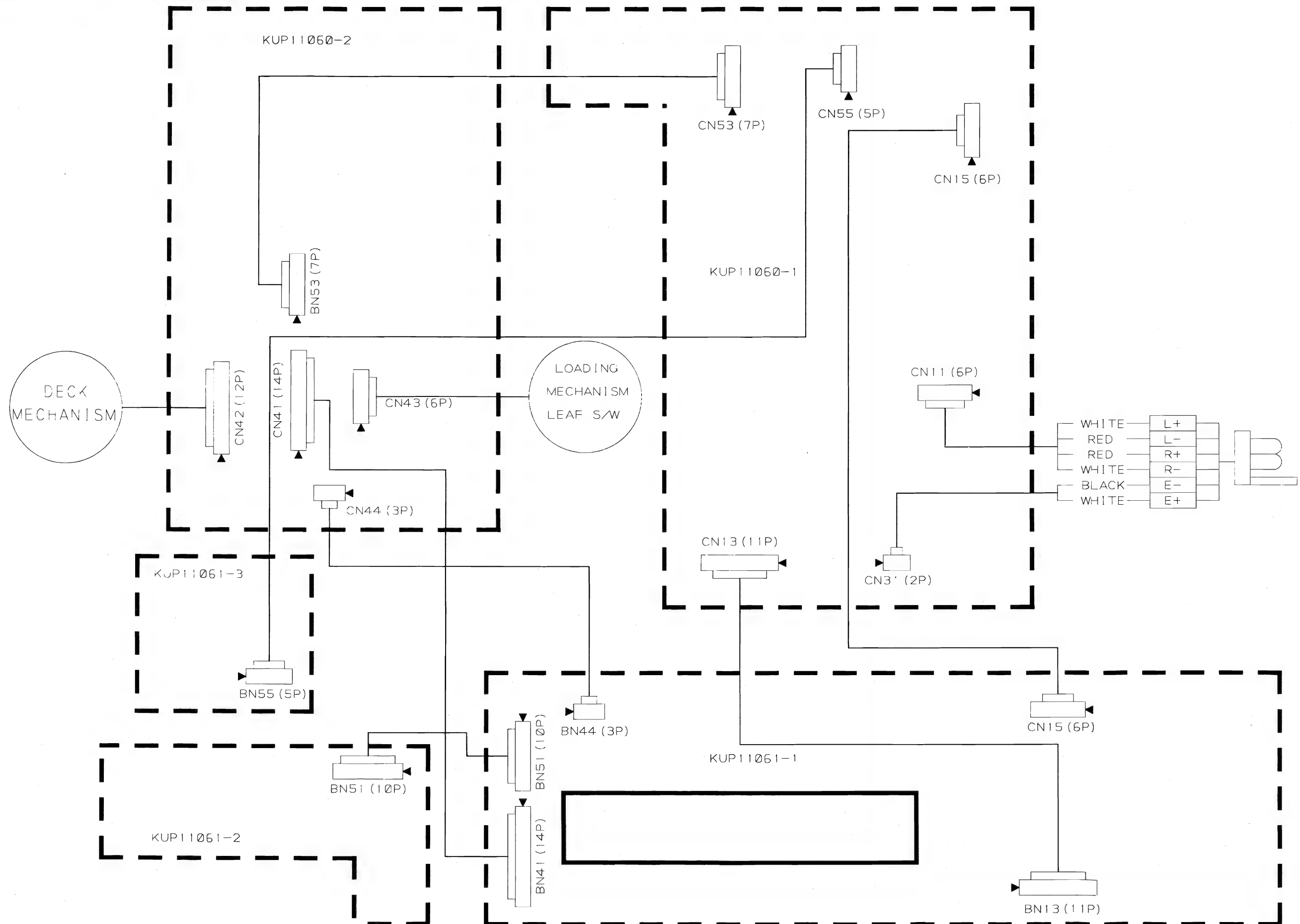
MC 4558S (OP AMP)



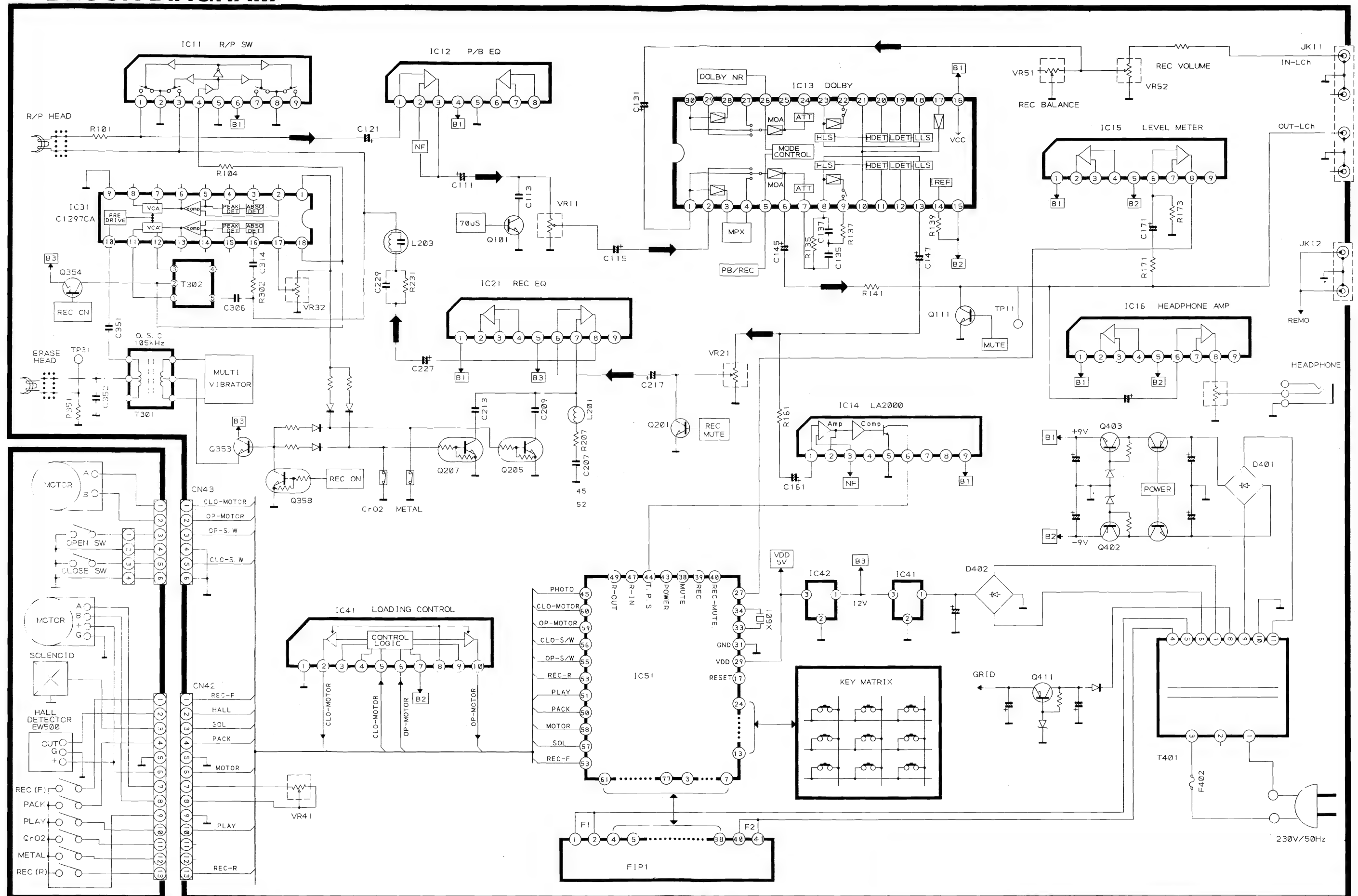
CXA1331S (DOLBY B. C Noise Reduction System)



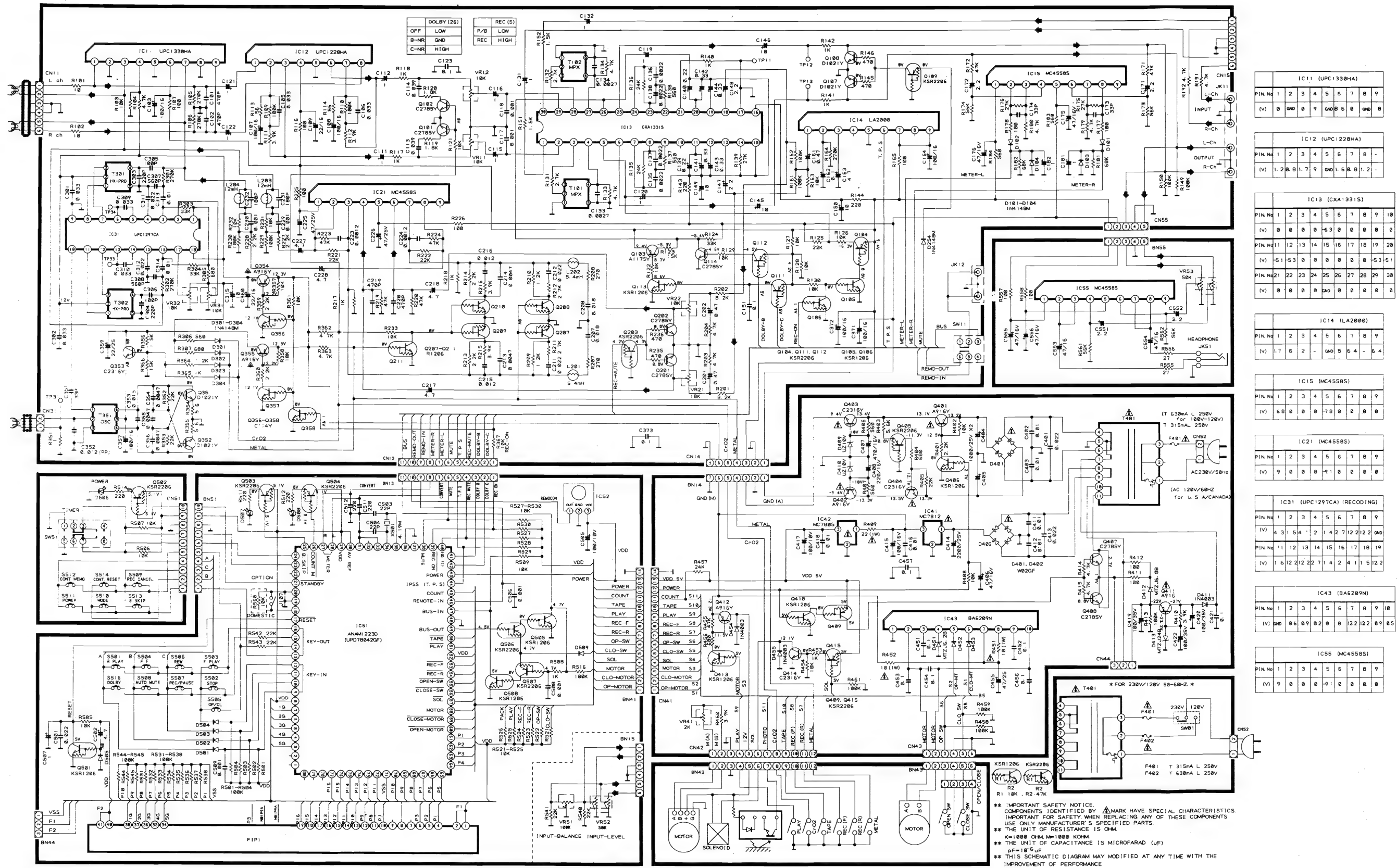
WIRING DIAGRAM



BLOCK DIAGRAM

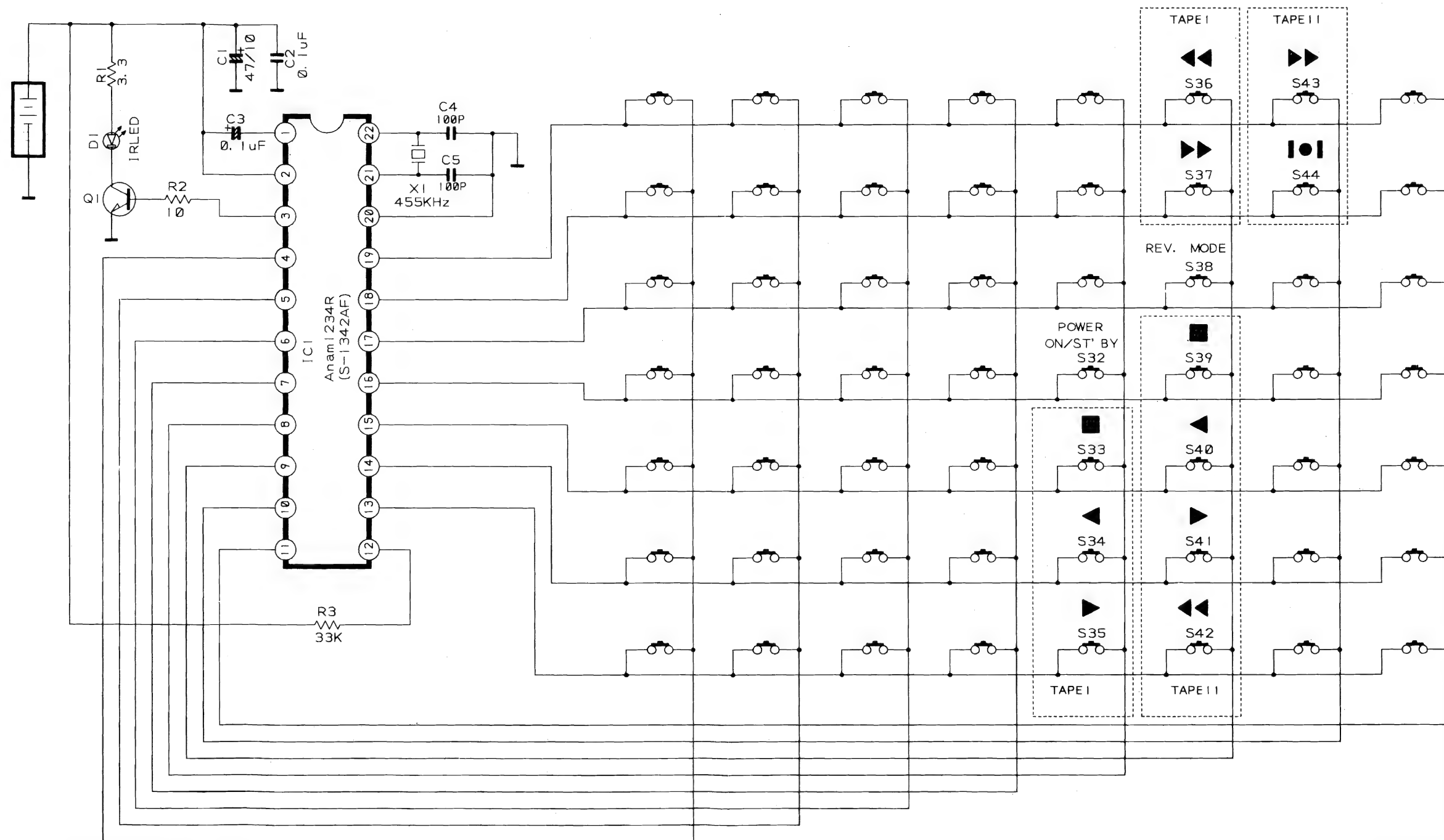


SCHEMATIC DIAGRAM

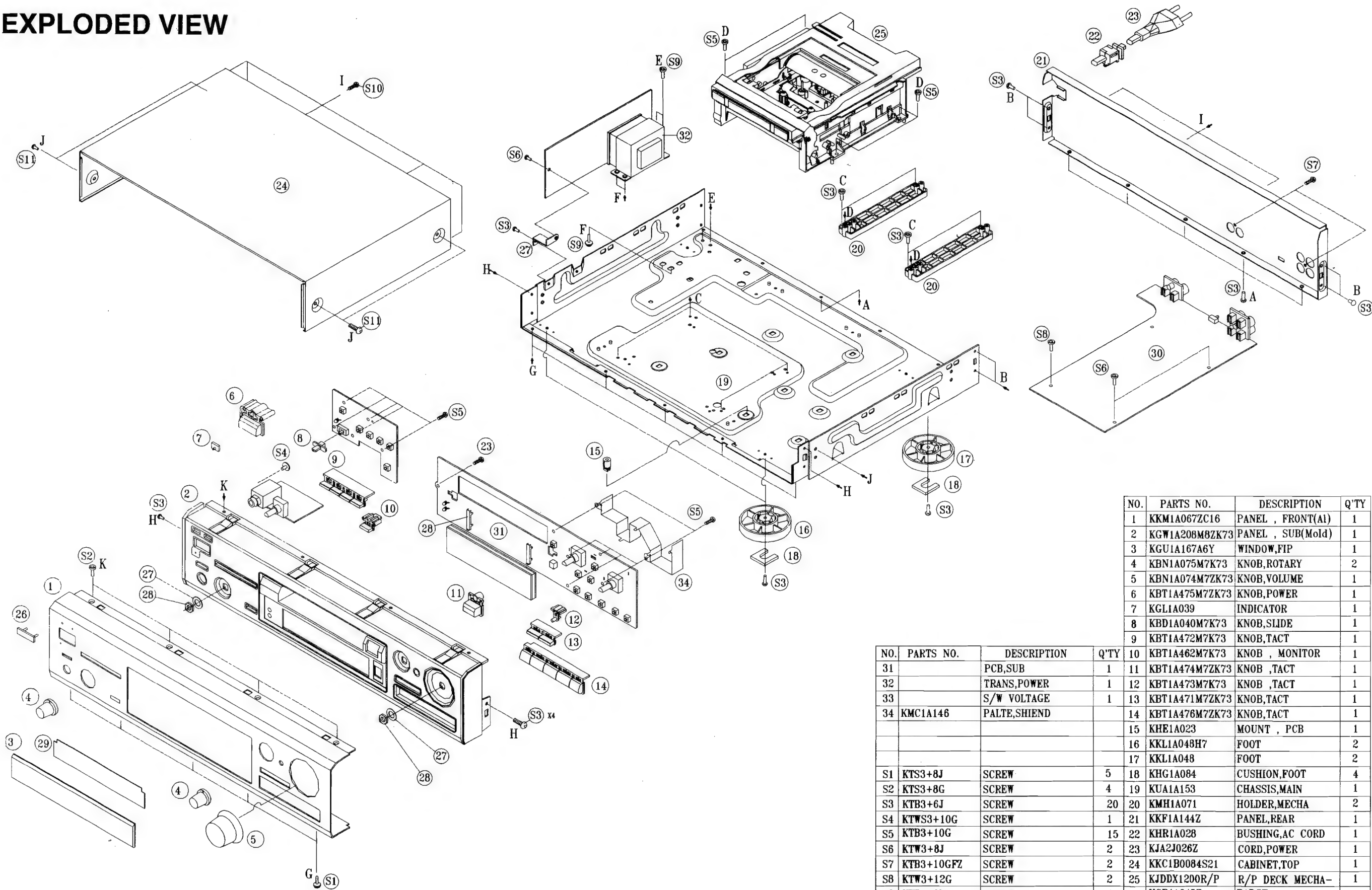


REMOTE CONTROL SCHEMATIC DIAGRAM

MODEL NO: RC-G1200 (DECK)

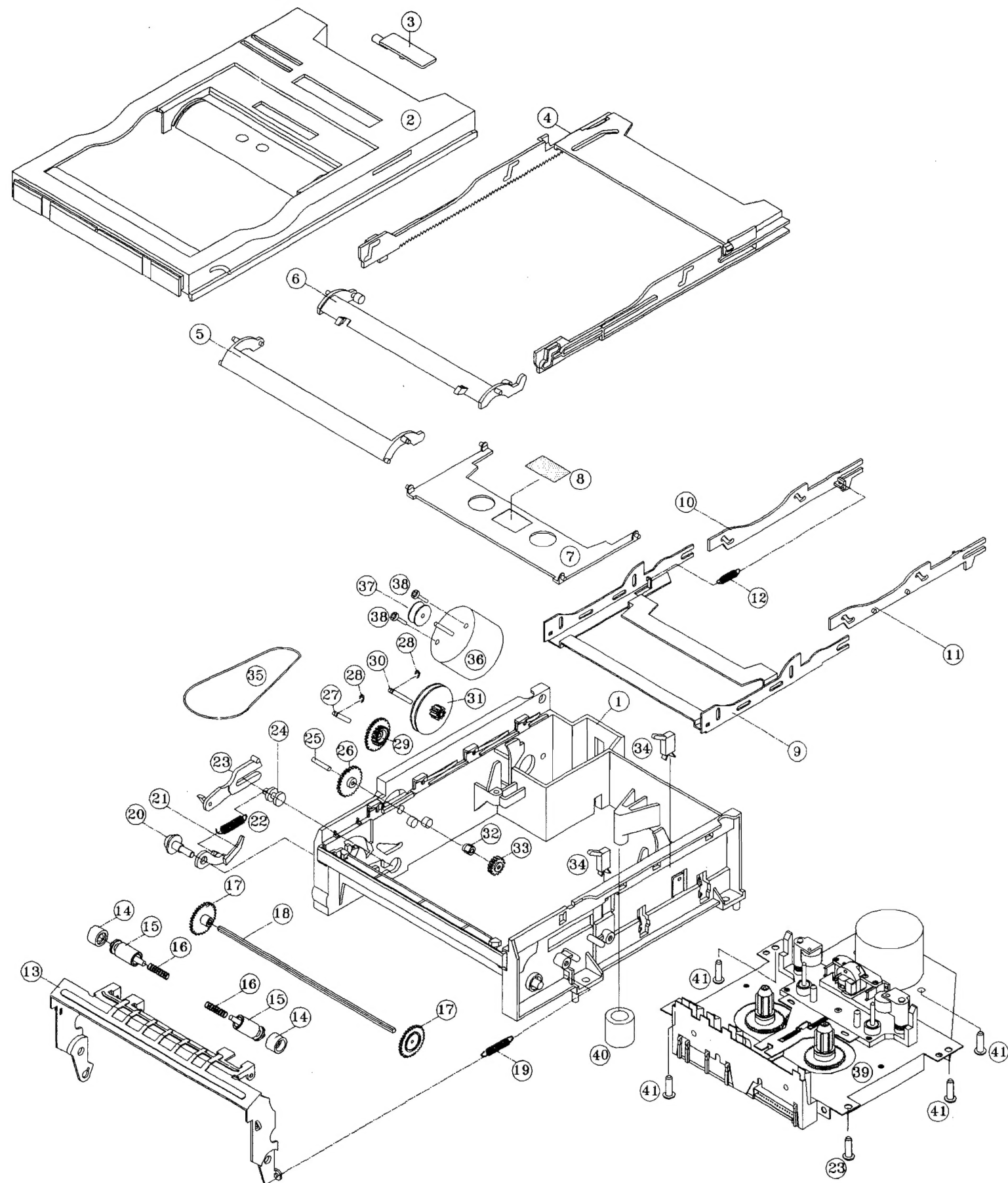


EXPLODED VIEW



NO.	PARTS NO.	DESCRIPTION	Q'TY
1	KKM1A067ZC16	PANEL , FRONT(AI)	1
2	KGW1A208M8ZK73	PANEL , SUB(Mold)	1
3	KGU1A167A6Y	WINDOW,FIP	1
4	KBN1A075M7K73	KNOB,ROTARY	2
5	KBN1A074M7ZK73	KNOB,VOLUME	1
6	KBT1A475M7ZK73	KNOB,POWER	1
7	KGL1A039	INDICATOR	1
8	KBD1A040M7K73	KNOB,SLIDE	1
9	KBT1A472M7K73	KNOB,TACT	1
10	KBT1A462M7K73	KNOB , MONITOR	1
11	KBT1A474M7ZK73	KNOB ,TACT	1
12	KBT1A473M7K73	KNOB ,TACT	1
13	KBT1A471M7ZK73	KNOB,TACT	1
14	KBT1A476M7ZK73	KNOB,TACT	1
15	KHE1A023	MOUNT , PCB	1
16	KKL1A048H7	FOOT	2
17	KKL1A048	FOOT	2
18	KHG1A084	CUSHION,FOOT	4
19	KUA1A153	CHASSIS,MAIN	1
20	KMH1A071	HOLDER,MECHA	2
21	KKF1A144Z	PANEL,REAR	1
22	KHR1A028	BUSHING,AC CORD	1
23	KJA2J026Z	CORD,POWER	1
24	KKC1B0084S21	CABINET,TOP	1
25	KJDDX1200R/P	R/P DECK MECHA-	1
26	KGB1A045Z	BADGE	1
27	KMD1A346	BRACKET,PCB	1
28	KMD1A209	BRACKET,FLT	2
29	KMZ1A066	FILTER,FIP	1
30		PCB,MAIN	1

MECHANISM ASS'Y



NO.	PARTS NO.	DESCRIPTION	Q'TY	REMARKS
1	KD4A005	BASE	1	
2	KDD4A005	TRAY	1	
3	KKR2A019	STOPPER	1	
4	KKR1A017	TRNASFER	1	
5	KKR1A016	LINKER , FRONT	1	
6	KKR1A015	LINKER , REAR	1	
7	KKR2A014	PLATTER , TAPE	1	
8	KKR1104B	REFLETOR	1	
9	KKR1A013	PLATTER , LOADING	1	
10	KDD2A009	TRAY , SUB(L)	1	
11	KDD2A006	TRAY , SUB(R)	1	
12	KUS1A063	SPRING , TRAY	1	
13	KUC1A023	ARM , PUSH	1	
14	KHR1A026	ROLL , SILICONE	2	
15	KKG1A026	HOLDER , BAR	2	
16	KUS1A067	SPRING ,COIL	2	
17	KDG1A010	GEAR , TRAY	2	
18	KDF1A009	SHAFT , BAR	1	
19	KUS1A065	SPRING , PUSH ARM	1	
20	KHD2A010	SCREW , SPECIAL	1	
21	KDD2A007	LATCH	1	
22	KUS1A064	SPRING , LINKER	2	
23	KKR1A018	LINKER	1	
24	KDR1A013	ROLLER	1	
25	KDF3A012	SHAFT , PIN	1	
26	KDG3A012	GEAR(A) , IDLE	1	
27	KDF1A010	SHAFT , GEAR	1	
28	KNW1A010	E-RING	2	
29	KDG2A013	GEAR(B) , IDLE	1	
30	KDF2A011	SHAFT , PIN	1	
31	KDR2A014	GEAR , PULLEY	1	
32	KDD2A008	BUSHING , SERRATION	1	
33	KDG3A011	GEAR , PINION	1	
34	BSH1A005Z	SWITCH , LEAF(MLS-1)	2	
35	KDV1A003	BELT	1	
36	KDM3220B1	MOTOR	1	
37	KDR1A010	PULLEY , MOTOR	1	
38	KSB26+4	SCREW	2	
39	BJD1G2S21Z	DECK MECHANISM	1	
40	KNW1A023	RING-W	1	
40	KTB3+8G	SCREW	5	

PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list the Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering.
If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
3. How to read the Parts List.

■ Resistor and Capacitor

- Notes :
- Part numbers are indicated for most mechanical parts.
Please use this part number for parts order.
 - IMPORTANT SAFETY NOTICE.
Components identified by \triangle mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.
 - The unit of resistance is OHM(Ω)
K=1000(Ω), M=1000(K Ω)
 - The unit of capacitance is MICROFARAD(μ F).
 - P=10⁻⁶ μ F

■ Numbering System of Resistor

Example

KRD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Resistor Type	Wattage	Tolerance
KRD:Carbon	20:1/5W	F:± 1%
KRG:Metal Oxide	25:1/4W	J:± 5%
	50:1/2W	K:± 10%
	1:1W	
KRF:Metal Cement	2:2W	
	3:3W	

■ Numbering System of Capacitor

Example

KCKT	1H	101	K	B
Type	Voltage	Value	Tolerance	Peculiarity

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
KCB:Ceramic	OJ:6.3V	1H:50V DC	C:± 0.25pF
KCC:Ceramic	1A:10V	1:125V DC	G:± 2%
KCK:Ceramic	1C:16V	KC:400V AC	J:± 5%
KCFR:Semiconductor	1E:25V		K:± 10%
KCQI:Polyester	1H:50V		Z: + 80%, -20%
KCQP:Polypropylene	1V:35V		
KCQS:Polystyrol			

WARNING

\triangle (*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

\triangle (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

■ ELECTRICAL PARTS LIST

REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
P. C BOARD BLOCK PART NO.					
	Part No.	Description			
	KOP11060B	MAIN PCB ASS'Y			
	KOP11061B	SUB(FRONT) PCB ASS'Y			
MAIN PCB BLK CONSISTS OF FOLLOWING P. C. B					
	* MALN P. C. BOARD				
	* POWER P. C. BOARD				
SUB(FRONT) PCB BLK CONSISTS OF FOLLOWING P. C. B					
	* SUB(FRONT) P. C. BOARD				
	* HEADPHONE P. C. BOARD				
1. MAIN PCB					
D101~D105	KVD1N4148MT	DIODE	Q205~Q211	KVTKSR1206T	T.R
D301~D304			Q351, 352	KVTKSD1021YT	T.R
D401, 402	△ BVDW02GF	DIODE, BRIDGE	Q353, 356	KVTKSC2316YT	T.R
D409, 410	KVDUZ10BMT	DIODE, ZENER(10V)	Q357		
D411, 454	KVD1N4003SRT	DIODE, RECT	Q354, 355	KVTKSA916YT	T.R
D455			Q358	KVTKSR1206T	T.R
D412	KVDMTZJ6.8BT	DIODE, ZENER(6.8V)	Q401, 402	△ KVTKSA916YT	T.R
D413	KVDMTZJ24BT	DIODE, ZENER(24V)	Q403, 404	△ KVTKSC2316YT	T.R
D451	KVDMTZJ6.2BT	DIODE, ZENER(6.2V)	Q405, 409	KVTKSR2206T	T.R
IC11	BVIUPC1330HA	IC(R/P, SW)	Q406, 410	KVTKSR1206T	T.R
IC12	BVIUPC1228HA	IC(P/B, AMP)	Q407, 408	KVTKSC2785YT	T.R
IC13	BVICXA1331S	IC(DOLBY)	Q411, 412	△ KVTKSA916YT	T.R
IC14	BVILA2000	IC(T. P. S)	Q413	KVTKSR1206T	T.R
IC15, 16	KVIMC4558S	IC(OP AMP)	Q414	KVTKSC2316YT	T.R
IC21			Q415	KVTKSR2206T	T.R
IC31	BVIUPC1297CA	IC(HX-PRO)	R409	△ KRG1ANJ220H	(1W, 22 Ω)
IC41	△ KVIMC7812C	IC(REGULATOR 12V)	R451, 452	△ KRG1ANJ100H	(1W, 10 Ω)
IC42	△ KVIMC7805C	IC(REGULATOR 5V)	JK11	KJJ4P009Z	TERMINAL, IN/OUT
IC43	KVIBA6209N	IC(LOADING MOTOR)	KJ12	KJJ4N008Z	JACK, REMOCON
IC55	KVIMC4558S	IC(OP AMP)	VR11, 12	BVN1PA103B01T	SEMI VR, 10K Ω
T101, 102	KLM9C002S	COIL, MPX	VR21, 22		
T301, 302	KLM9B009Z	COIL, HX-PRO	VR31, 32		
T351	BLO8C004-S	COIL, BIAS	VR41	BVN1PA202B01T	SEMI VR, 2K Ω
L201, 202	KLQW542KLZ	COIL, C5.4mH	T401	△ KLT5N017ZW	TRANS, POWER [FOR E/B/S/U]
L203, 204	KLM9C008Z	COIL, TRAP		KLT5N017ZU	TRANS, POWER [FOR U.S.A/CANADA]
Q101, 102	KVTKSC2785YT	T.R	F401	△ KBA2C315TLE	FUSE, 315mA/250V
Q103	KVTKSA1175YT	T.R	2. SUB PCB		
Q104	KVTKSR2206T	T.R	IC51	BVIANAM1223D	IC(μ-COM)
Q105, 106	KVTKSR1206T	T.R	Q501	KVTKSR1206T	T.R
Q113			Q502~504	KVTKSR2206T	T.R
Q107, 108	KVTKSD1021YT	T.R	Q505, 508	KVTKSR1206T	T.R
Q109, 111	KVTKSR2206T	T.R	Q506, 507	KVTKSR2206T	T.R
Q112			VR51	BVV1U01W104Y	V/R, BALANCE
Q114	KVTKSC2785YT	T.R	VR52	BVV2X01A503Z	V/R, REC. LEVEL
Q201, 202	KVTKSC2785YT	T.R	VR53	BVV2W01A503Z	V/R, PHONES
Q203	KVTKSR2206T	T.R	S501~S515	BST1A014ZT	SW, TACT
			SW51	KSS3B003Z	SW, SLIDE
			FIP1	BFLFIP5AMW7Y	DISPLAY, FL
			3. OTHERS		
				BJD1G2S21Z	R/P DECK MECHANISM
				KUR041ZA	REMOTE CONTROL UNIT

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